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CENTRAL FAX CENTER

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#### **CLAIM AMENDMENTS**

This listing of claims will replace all prior versions, and listings, of claims in the application.

ì 1. (previously presented) A method of file access control comprising: 2 storing an encrypted filename of a file at a location in a computing system; 3 converting the encrypted filename into a plaintext filename; 4 modifying the plaintext filename into a modified filename; and 5 authorizing an entity to access the file for performing a write operation on 6 the file by comparing the modified filename to the stored encrypted 7 filename. 1 2. (previously presented) The method according to claim 1, wherein said 2 converting comprises using a key that comprises a combination of two 3 encryption keys to convert the encrypted filename into the plaintext filename. 3. (original) The method according to claim 2, wherein said modifying 2 comprises using a first one of the two encryption keys to encrypt the 3 plaintext filename into the modified filename. 1 4. (original) The method according to claim 3, wherein said authorizing 2 comprises using the second one of the two encryption keys to encrypt the 3 modified filename to form a result and determining whether the result matches the encrypted filename. 1 5. (original) The method according to claim 2, wherein said modifying 2 comprises using a first one of the two encryption keys to encrypt the 3 plaintext filename and performing a hash function on the filename thereby forming the modified filename.

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| 1        | 6.  | (original) The method according to claim 5, wherein said authorizing   |
|----------|-----|--|
| 2        |     | comprises comparing the modified filename to a stored hash value.  |
| 1        | 7.  | (original) The method according to claim 1, wherein said encrypted   |
| 2        |     | filename is encrypted using a first key prior to said storing and further  |
| <i>3</i> |     | comprising storing a second encrypted filename of the file at the location   |
| 5        |     | wherein the second encrypted filename is encrypted using a second key prior to said storing.   |
| 1        | 8.  | (original) The method according to claim 7, wherein said converting  |
| 2        |     | comprises using the first key to convert the encrypted filename into the plaintext filename.   |
| 1        | 9.  | (original) The method according to claim 8, wherein said modifying   |
| 2<br>3   |     | comprises using the second key to encrypt the plaintext filename into the modified filename.   |
| 1<br>2   | 10. | (original) The method according to claim 9, wherein said authorizing comprises comparing the modified filename to the second encrypted |
| 3        | ,   | filename.  |
| 1        | 11. | (original) The method according to claim 10, wherein said modifying  |
| 2        |     | further comprises performing a hash function on the filename after using   |
| 3        |     | the second key to encrypt the plaintext filename.  |
| 1        | 12. | (previously presented) The method according to claim 1, wherein the  |
| 2        |     | plaintext filename permits read access to the file.  |
| l        | 13. | (original) The method according to claim 1, wherein said storing   |
| 2        |     | comprises substituting said encrypted filename into a directory structure at   |
| }        |     | the location in place of the plaintext filename.   |
| :        | 14. | (original) The method according to claim 1, further comprising encrypting data of the file.  |

| 1   | 15. | (previously presented) An apparatus for controlling access to a file,       |
|-----|-----|---|
| 2   |     | comprising:   |
| 3   |     | a server for the storing an encrypted filename associated with a            |
| 4   |     | file; and   |
| 5   |     | a client in communication with the server for retrieving the                |
| 6   |     | encrypted filename from the server, for converting the encrypted            |
| 7   |     | filename into a plaintext filename and for modifying the plaintext          |
| 8   |     | filename into a modified filename,  |
| 9   |     | wherein the client provides the modified filename to the server and         |
| .0  |     | wherein the server determines whether the client is authorized to perform a |
| 1   |     | write operation on the file by comparing the modified filename received     |
| 2   |     | from the client to the stored encrypted filename.                           |
| 1   | 16. | (previously presented) The apparatus according to claim 15, wherein the     |
| 2   |     | plaintext filename permits read access to the file.                         |
| i , | 17. | (previously presented) The apparatus according to claim 15, wherein said    |
| 2   |     | client converts the encrypted filename into the plaintext filename using a  |
| 3   |     | key that comprises a combination of two encryption keys.                    |
| 1   | 18. | (original) The apparatus according to claim 17, wherein said client forms   |
| 2   |     | the modified filename using a first one of the two encryption keys to       |
| 3   |     | encrypt the plaintext filename.   |
| 1   | 19. | (previously presented) The apparatus according to claim 18, wherein said    |
| 2   |     | server determines whether the client is authorized to perform the write     |
| 3   |     | operation on the file by using the second one of the two encryption keys to |
| 4   |     | encrypt the modified filename to form a result and determines whether the   |
| 5   |     | result matches the encrypted filename provided by the client.               |
| ł   | 20. | (previously presented) The apparatus according to claim 17, wherein said    |
| 2   |     | client forms the modified filename using a first one of the two encryption  |
|     |     |   |

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| 3          |     | keys to encrypt the plaintext filename and performs a hash function on the filename thereby forming the modified filename. |
|------------|-----|--|
| 1          | 21. | (previously presented) The apparatus according to claim 17, wherein sai  |
| 2          |     | server performs a hash function on the filename to form a result and   |
| 3          |     | determines whether the client is authorized to perform the read operation  |
| 4          |     | on the file by comparing the result to a stored hash value.  |
| 1          | 22, | (original) The apparatus according to claim 17, wherein said client form   |
| 2          |     | the modified filename using a first one of the two encryption keys to  |
| 3          |     | encrypt the plaintext filename and performs a hash function on the   |
| 4          |     | filename to form a result and wherein the server determines whether the  |
| 5          |     | client is authorized to perform the type of operation on the file by   |
| 6          |     | comparing the result to a stored hash value.   |
| 1          | 23. | (original) The apparatus according to claim 15, wherein the encrypted  |
| 2          |     | filename is encrypted using a first key and wherein the server stores a  |
| 3          |     | second encrypted filename wherein the second encrypted filename is   |
| <b>4</b> . |     | encrypted using a second key.  |
| 1          | 24. | (original) The apparatus according to claim 23, wherein the client   |
| 2          |     | converts the encrypted filename into the plaintext filename using the first  |
| 3          |     | key and modifies the plaintext filename into the modified filename using   |
| 4          |     | the second key.  |
| 1          | 25. | (currently amended) The apparatus according to claim 24, wherein the   |
| 2          |     | server determines whether the client is authorized to perform the write  |
| 3          |     | [[of]] operation on the file by comparing the modified filename to the   |
| 4          |     | second encrypted filename.   |
| 1          | 26. | (original) The apparatus according to claim 25, wherein the server   |
| 2          |     | performs a hash function on the filename after the client uses the second  |
| 3          |     | key to modify the filoname.  |

| 1  | 27. | (original) The apparatus according to claim 25, wherein the client              |
|----|-----|---|
| 2  |     | performs a hash function on the filename after using the second key to          |
| 3  |     | modify the filename.  |
| 1  | 28. | (canceled)  |
| 1  | 29. | (canceled)  |
| 1  | 30. | (currently amended) The apparatus according to claim 29, An apparatus           |
| 2  |     | for controlling access to a file comprising a server having a stored            |
| 3  | •   | encrypted filename of a file, the server being in communication with a          |
| 4  |     | writer and a reader, the writer being a client of the server and having a firs  |
| 5  |     | key that permits the writer to write to the file and the reader being another   |
| б  |     | client of the server and having a combination key that comprises a              |
| 7  |     | combination of the first key and a second key wherein the stored encrypted      |
| 8  |     | filename is obtained by encrypting a filename of the file using the             |
| 9  |     | combination key and the combination key permits the reader to read the          |
| 10 |     | file and further wherein the server determines that the writer is authorized    |
| 11 |     | to write to the file by receiving from the writer the filename encrypted        |
| 12 |     | using the first key, encrypting the received filename again using the           |
| 13 |     | second key thereby forming a twice encrypted filename and comparing the         |
| 14 |     | twice encrypted filename to the stored encrypted filename.                      |
| Ī  | 31. | (currently amended) The apparatus according to claim 29, An apparatus           |
| 2  |     | for controlling access to a file comprising a server having a stored            |
| 3  |     | encrypted filename of a file, the server being in communication with a          |
| 4  |     | writer and a reader, the writer being a client of the server and having a first |
| 5  |     | key that permits the writer to write to the file and the reader being another   |
| 6  |     | client of the server and having a combination key that comprises a              |
| 7  |     | combination of the first key and a second key wherein the stored encrypted      |
| 8  |     | filename is obtained by encrypting a filename of the file using the             |
| 9  |     | combination key and the combination key permits the reader to read the          |
| 10 |     | file and further wherein the server determines that the writer is authorized    |
| 11 |     | to write to the file by receiving from the writer the filename encrypted        |

| 12  |             | using the first key, applying a hash function to the received filename         |
|-----|-------------|--|
| 13  |             | thereby forming a computed hash value and comparing the computed has           |
| 14  |             | value to a stored hash value.  |
| 1   | 32.         | (previously presented) An apparatus for controlling access to a file           |
| 2   |             | comprising a server having a first stored encrypted filename of the file and   |
| 3   |             | a second stored encrypted filename of the file, the server being in            |
| 4 . |             | communication with a writer and a reader, the writer being a client of the     |
| 5   |             | server and having a first key that permits the writer to write to the file and |
| 6   |             | the server determining whether the writer is authorized to write to the file   |
| 7   |             | by receiving from the writer the filename encrypted using the second key       |
| 8   |             | and comparing the received filename to the second stored encrypted             |
| 9   |             | filename and the reader being another client of the server and having a        |
| 10  |             | second key that permits the reader to read the file.                           |
| 1   | 33.         | (original) The apparatus according to claim 32, wherein the reader             |
| 2   |             | decrypts the first stored encrypted filename using the first key.              |
| 1   | 34.         | (canceled)   |
| 1   | <b>35</b> . | (previously presented) The apparatus according to claim 32, wherein the        |
| 2   |             | server performs a hash function on the received filename before comparing      |
| 3   |             | the received filename to the second stored encrypted filename.                 |
| 1   | 36.         | (previously presented) The method according to claim 2, further                |
| 2   |             | comprising:  |
| 3   |             | encrypting the plaintext filename using a key that comprises a                 |
| 4   | v           | combination of two encryption keys; and  |
| 5   |             | comparing a result of this encrypting to the stored encrypted filename         |
| 6   |             | to determine whether to permit read access to the file.                        |
| 1   | 37.         | (previously presented) The method according to claim 36, wherein said          |
| 2   |             | modifying comprises using a first one of the two encryption keys to            |
| 3   |             | encrypt the plaintext filename into the modified filename                      |

| 1 | 38. | (previously presented) The apparatus according to claim 15, wherein the    |
|---|-----|--|
| 2 |     | client encrypts the plaintext filename and the server compares the         |
| 3 |     | encrypted plaintext filename to its stored encrypted filename to determine |
| 4 |     | whether to permit read access to the file.                                 |
| 1 | 39. | (previously presented) The apparatus according to claim 38, wherein the    |
| 2 |     | client encrypts the plaintext filename to form the encrypted plaintext     |
| 3 |     | filename using a key that comprises a combination of two encryption keys   |
| 4 |     | and the client encrypts the plaintext filename to form the modified        |
| 5 |     | filename using a first one of the two encryption keys.                     |